

Claims

1. Process for the vowelization of an Arabic language text, aided by computer means, wherein:
  - 5 a) a first memory area is provided, in which a first dictionary comprising unvowelized words is stored,
  - b) a second memory area is provided, in which a second dictionary comprising groups of at least one vowelized word is stored, each group being stored in  
10 correspondence with an unvowelized word of said first dictionary,
  - c) for a current unvowelized word, a string of characters forming at least said current word is compared with strings of characters stored in the first  
15 memory area, so as to isolate at least one word from the first dictionary comprising the same character string as the current word, and
  - d) a group of vowelized candidate words corresponding to said isolated word from the first dictionary is  
20 extracted from the second dictionary.
2. Process according to Claim 1, wherein there is provided a computer routine suitable for performing said comparison of the character strings and said  
25 extraction of the group of candidate words.
3. Process according to Claim 1, wherein there is furthermore provided a man/machine interface suitable for offering a user a list of choices of said candidate  
30 words.
4. Process according to Claim 1, wherein, said current word forming part of a succession of words,
  - 35 c1) a string of characters forming said succession of words comprising the current word is compared with strings of characters stored in a memory area in correspondence with the second memory area, so as to identify a plurality of words comprising one and the same string of characters as said succession of words,

and

d2) for said current word, at least one vowelized word is selected from said group of vowelized candidate words as a function of the succession of identified words and of a position of the current word in said succession of identified words.

5. Process according to Claim 4, wherein said succession of words is a complete sentence defined by a string of characters between two punctuation characters.

6. Process according to Claim 4, wherein said current word is automatically replaced in an electronically edited text with said vowelized word, selected from the group of candidate words.

7. Process according to Claim 3 and Claim 4, wherein the man/machine interface offers a user a list of choices comprising words selected from said candidate words.

8. Process according to Claim 7, wherein grammatical labels are furthermore stored in correspondence with each word in each group of the second dictionary, and wherein the man/machine interface furthermore indicates to the user a grammatical label of each of the words selected from said candidate words.

9. Process according to Claim 3, wherein, said current word forming part of a current succession of words, following the choice of a word by said user from the list of candidate words, the chosen word is stored with the succession of words, in a memory area in correspondence with said second memory area.

10. Process according to Claim 8 and Claim 4, wherein the selecting of the vowelized word from said group of

vowelized candidate words is performed by learning, by comparing the current succession of words with successions of words which are stored in said memory area in correspondence with the second memory area.

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11. Computerized device for assisting the vowelization of an Arabic language text, comprising:

- a first memory area in which a first dictionary comprising unvowelized words is stored,
- 10 - a second memory area in which a second dictionary comprising groups of at least one vowelized word is stored, each group being stored in correspondence with an unvowelized word of said first dictionary,
- a memory area in which are stored instructions of
- 15 a computer routine suitable for:
  - c) comparing, for a current unvowelized word, a string of characters forming at least said current word with strings of characters stored in the first memory area, so as to isolate at least one word from the first
  - 20 dictionary comprising the same character string as the current word, and
  - d) extracting a group of vowelized candidate words corresponding to said isolated word from the first dictionary from the second dictionary.

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12. Computerized device according to Claim 11, furthermore comprising a man/machine interface suitable for offering a user a list of choices of said candidate words.

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13. Computerized device according to Claim 11, wherein, said current word forming part of a succession of words, said computer routine is devised so as to:

- c1) compare a string of characters forming said
- 35 succession of words comprising the current word with strings of characters stored in a memory area in correspondence with the second memory area, so as to identify a plurality of words comprising one and the same string of characters as said succession of words,

and

d2) for said current word, select at least one  
vowelized word from said group of vowelized candidate  
words as a function of the succession of identified  
5 words and of a position of the current word in said  
succession of identified words.

14. Computerized device according to Claim 13, wherein  
said succession of words is a complete sentence defined  
10 by a string of characters between two punctuation  
characters, and wherein said computer routine is  
devised so as to isolate the characters of the complete  
sentence between the two punctuation marks.

15 15. Computerized device according to Claim 11,  
furthermore comprising electronic means of Arabic  
language text editing, wherein said computer routine is  
able to cooperate with said text editing means.

20 16. Computerized device according to Claim 15 and  
Claim 13, wherein the computer routine is devised to  
automatically replace in an edited text said current  
word with said vowelized word, selected from the group  
of candidate words.

25 17. Computerized device according to Claim 12 and  
Claim 13, wherein the man/machine interface is devised  
so as to offer a list of choices comprising words  
selected from said candidate words.

30 18. Computerized device according to Claim 12,  
wherein, said current word forming part of a current  
succession of words,  
the computer routine furthermore comprises instructions  
35 for storing the chosen word with said succession of  
words, in a memory area in correspondence with said  
second memory area.

19. Computerized device according to Claim 18 and

Claim 13, wherein the computer routine comprises instructions for comparing the current succession of words with successions of words stored in said memory area in correspondence with the second memory area, and  
5 selecting, as a function of this comparison, at least one vowelized word from said group of vowelized candidate words.

20. Computerized device according to Claim 17,  
10 comprising a memory area for furthermore storing grammatical labels in correspondence with each word in each group of the second dictionary, and wherein the man/machine interface furthermore indicates to the user a grammatical label of each of the words selected from  
15 said candidate words.

21. Computer program for assisting the vowelization of an Arabic language text, stored in a memory of a computerized device or on a medium intended to  
20 cooperate with a reader of a computerized device, comprising:

- a first database devised according to a first dictionary comprising unvowelized words,
- a second database devised according to a second  
25 dictionary comprising groups of at least one vowelized word, each group of the second base being indexed in correspondence with an unvowelized word of the first base, and
- a computer routine suitable for:  
30 c) comparing, for a current unvowelized word, a string of characters forming at least said current word with strings of characters stored in the first memory area, so as to isolate at least one word from the first dictionary comprising the same character string as the  
35 current word, and
- d) extracting a group of vowelized candidate words corresponding to said isolated word from the first dictionary from the second dictionary.

22. Computer program according to Claim 21, intended to be installed in a memory of a computer machine and comprising a man/machine interface module suitable for offering a user a list of choices of said candidate words.

23. Computer program according to Claim 21, wherein, said current word forming part of a succession of words, the program comprises instructions for:

10 c1) compare a string of characters forming said succession of words comprising the current word with strings of characters stored in a memory area in correspondence with the second memory area, so as to identify a plurality of words comprising one and the

15 same string of characters as said succession of words, and

d2) for said current word, selecting at least one vowelized word from said group of vowelized candidate words as a function of the succession of identified

20 words and of a position of the current word in said succession of identified words.

24. Computer program according to Claim 23, wherein said succession of words is a complete sentence defined

25 by a string of characters between two punctuation characters, and wherein the program comprises instructions for isolating the characters of the complete sentence between the two punctuation marks.

30 25. Computer program according to Claim 21, compatible and able to cooperate with an Arabic language text editing program.

26. Computer program according to Claim 25 and

35 Claim 23, intended to be installed in a memory of a computerized device and comprising instructions for automatically replacing in an edited text said current word with said vowelized word, selected from the group of candidate words.

27. Computer program according to Claim 22 and  
Claim 23, wherein the man/machine interface is devised  
so as to offer a list of choices comprising words  
5 selected from said candidate words.

28. Computer program according to Claim 22, wherein,  
said current word forming part of a current succession  
of words,  
10 the computer program furthermore comprises instructions  
for storing the chosen word with said succession of  
words, in a memory area in correspondence with said  
second memory area.

29. Computer program according to Claim 28 and  
Claim 23, wherein the computer program comprises  
instructions for comparing the current succession of  
words with successions of words stored in said memory  
area in correspondence with the second memory area, and  
20 selecting, as a function of this comparison, at least  
one vowelized word from said group of vowelized  
candidate words.

30. Computer program according to Claim 27, comprising  
25 a database stored in correspondence with each word of  
the second dictionary and comprising grammatical labels  
for each word in each group of the second dictionary,  
wherein the man/machine interface comprises  
instructions for furthermore indicating to the user a  
30 grammatical label of each of the words selected from  
said candidate words.